Powered by **niagara** ^AX
FRAMEWORK®

NPB-LON Option
INSTALLATION SHEET

This document covers the mounting and wiring of the NPB-LON[1] option card in a Vykon® JACE controller (JACE-200/600, SEC-J-*x*01, or J-202-XPR series).

Table 1   NPB-LON option description.

Description	Notes / LON Port Assignments
FTT-10A LON (LonWorks) adapter with a 2-position removable screw-terminal connector plug.	Up to 2 LON® option cards may be installed (note that the J-202-XPR series controller accepts only one option card). • If one LON option, it operates as LON1, regardless of Option slot. • If two LON options, LON1 is Option slot 1, LON2 is Option slot 2. See Figure 2 on page 2 for location of Option Slots 1 and 2 on a JACE-200/600.

Refer to the appropriate JACE® mounting and wiring document for further JACE installation details.

Included in this Package

Included in this package you should find the following items:

- NPB-LON option card, connector end plate.
- one 2-position terminal plug, for wiring to an FTT-10 LonWorks® network
- This *NPB-LON Option Installation Sheet*, Part Number 10620 Rev. 2
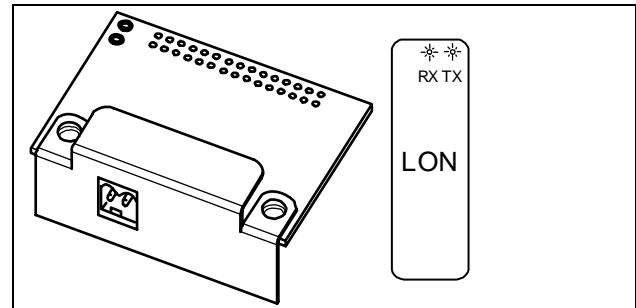
Material and Tools Required

The following tools and supplies may be required for installation:

- #2 phillips screwdriver: to install the NPB-LON.
- Small flat-blade screwdriver: to make wiring connections to the FTT-10 Lonworks network.
- #1 phillips screwdriver: to remove and refasten J-202-XPR covers (if applicable).

Figure 1   NPB-LON option.

Mounting

⚠

Warning   **Power to the JACE must be OFF when installing or removing option cards, or damage will occur! Also, you must be very careful to plug any option card into its connector properly (pins aligned).**

Mount the NPB-LON option card in either of the option card slots of the JACE, as needed. Note the J-202-XPR series has only one option card slot.

Procedure 1   Mounting NPB-LON option card on a JACE.

1. **Remove power** from the JACE—see the previous Warning. Wait for all LEDs on the unit to be Off.

2. Remove the JACE cover or covers (J-202-XPR). For all but the J-202-XPR, press in the four tabs on both ends of the unit, and lift the cover off.
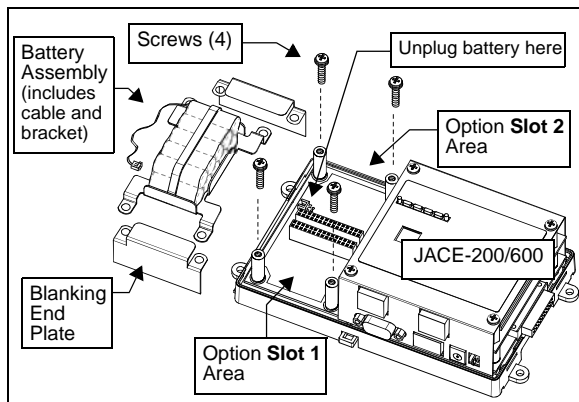
📝

Note   If accessory modules are plugged into the JACE, you may need to slide them away from the unit to get to the cover tabs.
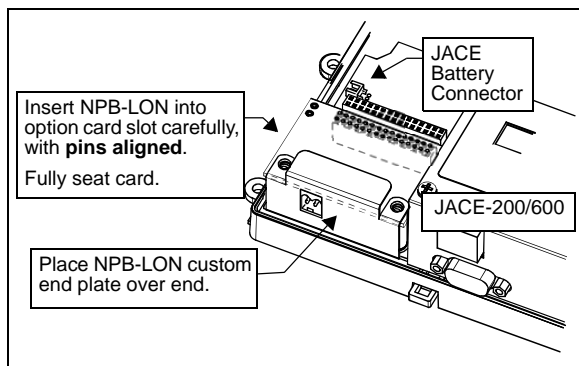
For the J-202-XPR, first remove the right cover, then the left cover, retaining the two screws that secure each cover.

---

1. LON and LonWorks are registered trademarks of the Echelon Corporation.

3. For all but the J-202-XPR, remove the battery and bracket assembly by taking out the screws holding it in place, setting the screws aside for later. Unplug the battery from the connector on the JACE. See Figure 2 for an exploded view.
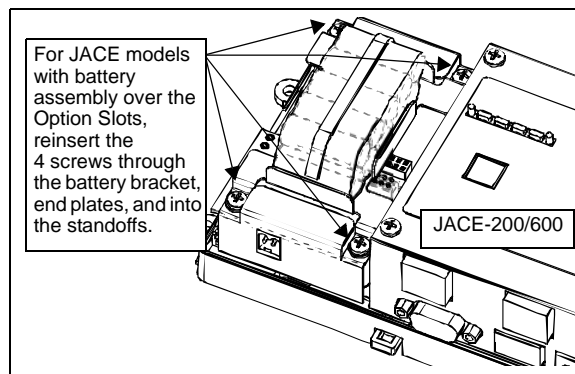
Figure 2   Remove battery assembly.

4. Remove the blanking end plate for the slot you are installing the option card into.
(Retain the blanking end plate in case the option card must be removed at a later date.)

5. Carefully insert the pins of the NPB-LON into the socket of the appropriate option card slot. The mounting holes on the option board should line up with the standoffs on the base board. If they do not, the connector is not properly aligned. Press until the option card is completely seated.

6. Place the custom end plate that came with the NPB-LON over its connector (see Figure 3).

Figure 3   NPB-LON inserted, end plate on top.

7. Plug the battery cable into the battery connector on the JACE (Figure 3 shows the location of the battery connector on the JACE-200/600).

8. For all but the J-202-XPR, set the battery and bracket assembly back over the option card slots, with mounting holes aligned with the standoffs. Screws enter holes in the battery bracket first.

Figure 4   Re-fasten screws.

9. Place the screws through the end plate(s), and into the standoffs on the base board. Using a screwdriver, hand tighten screws.

10. Replace the JACE cover or covers (J-202-XPR). If accessory modules were unplugged from the JACE, plug them back as before, and secure.

Wiring

Connect LonWorks FTT-10 communications wiring to the 2 position connector of the NPB-LON. Note that polarity is not a factor in FTT-10 wiring.

Refer to the *LonWorks FTT-10A Free Topology Transceiver User's Guide* (078-0156-01F) for technical guidelines associated with free topology restrictions, and the *Junction Box and Wiring Guidelines for Twisted Pair LonWorks Networks* (005-0023-01) for more detailed information on wiring specifications. These documents are available on Echelon's web site (www.echelon.com).

LEDs

Two LEDs are visible on the top of the NPB-LON option card (cover must be removed from JACE):

- RX (green) — Receive, indicates that another LonWorks device is transmitting a message.
- TX (yellow) — Transmit, indicates that the JACE is transmitting a message on the LON trunk.

These LEDs are included on the top label of the the NPB-LON, see Figure 1.